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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,785	11/20/2001	Tsuneyuki Kikuchi	070639-0136	9130

22428 7590 04/18/2007

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EXAMINER	
BATURAY, ALICIA	
ART UNIT	**PAPER NUMBER**
2155	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/988,785	KIKUCHI, TSUNEYUKI	
	Examiner	Art Unit	
	Alicia Baturay	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *46-89* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *46-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment filed 30 January 2007.

2. Claims 1-45 were cancelled.

3. Claims 46-89 were added.

4. Claims 46-89 are pending in this Office Action.

Response to Amendment

5. Applicant's amendments and arguments with respect to claims 46-89 filed on 30 January 2007 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

Claim Objections

6. Claims 46, 54 and 56 are objected to because of the following informalities: the claims state "the *sever* including:" It is thought Applicant meant to write "the *server* including:" Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 46, 47, 51, 53, 57, 58, 62, 64, 68, 69, 73, 75, 79, 80, 84 and 86 are rejected under 35 U.S.C. 102(e) as being anticipated by Rao et al. (U.S. 6,674,756).

9. With respect to claim 46, Rao teaches a communications system comprising: a server (Rao, col. 4, lines 6-8); a plurality of client terminals (Rao, col. 16, lines 46-55); and a communications network that interconnects the server and the plurality of client terminals (Rao, col. 4, line 62 – col. 5, line 6), the server including:

A memory for storing disconnection condition information for each of the client terminals (Rao, Fig. 11; col. 14, line 45 – col. 15, line 15 and col. 16, lines 31-45); decision means for monitoring connection states of the client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal (Rao, col. 16, lines 31-45), wherein the connection state of a client terminal is represented by two items of control information received from the client terminal (Rao, col. 9, lines 30-43); and disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal (Rao, col. 16, lines 46-61).

10. With respect to claim 47, Rao teaches the invention described in claim 46, including the communication system wherein the two items of control information are a transmission address and a reception address (Rao, col. 9, lines 30-43).

11. With respect to claim 51, Rao teaches the invention described in claim 46, including the communication system wherein the two items of control information are an application server address and a service identifier (Rao, col. 9, lines 30-43).

12. With respect to claim 53, Rao teaches the invention described in claim 46, including the communication system wherein, when the disconnection conditions of two or more of the client terminals having the same disconnection condition are met, the disconnection means disconnects the client terminal logged in at an earliest time (Rao, col. 16, lines 56-61).

13. Claims 57, 58, 62, 64, 68, 69, 73, 75, 79, 80, 84 and 86 do not teach or define any new limitations above claims 46, 47, 51, and 53 and therefore are rejected for similar reasons.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 48, 52, 54, 55, 59, 63, 65, 66, 70, 74, 76, 77, 81, 85, 87 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and further in view of Douglis et al. (U.S. 6,487,596).

Rao teaches the invention substantially as claimed including a physical network switch partitioned into a plurality of virtual routers (VRs) where each VR has allocated to it a set of resources and routing tables. The system resources are not tied to a particular network interface, allowing them to be flexibly partitioned among the various VRs. Each VR may also be partitioned into multiple virtual private networks (VPNs) for controlling access to certain portions of the VR. Access is controlled by filtering software that filters traffic directed to the VR based on criteria such as source and/or destination addresses (see Abstract).

16. With respect to claim 48, Rao teaches the invention described in claim 47, including the communications system, wherein the disconnection means monitors an arrival of a packet having said transmission address and said reception address (Rao, col. 10, lines 6-8).

Rao does not explicitly teach a timeout period as a disconnection condition.

However, Douglis teaches wherein the disconnection condition for a client terminal is a non-communication time period, and disconnects the client terminal when a time period has elapsed after said arrival exceeds the non-communication time period for the client terminal (Douglis, col. 3, lines 6-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of Douglis in order to enable the use a timeout period as a disconnection condition. One would be motivated to do so in order to allow a customer to avoid the burden of disconnection and reconnection by paying a premium for the service.

17. With respect to claim 52, Rao teaches the invention described in claim 51, including wherein the disconnection means monitors an arrival of a packet that includes the application server address and the service identifier address (Rao, col. 9, lines 30-43).

Rao does not explicitly teach a timeout period as a disconnection condition.

However, Douglis teaches wherein the communication system wherein the disconnection condition for a client terminal is a timeout time (Douglis, col. 3, lines 9-26), the timeout time being stored in conjunction with the application server address and the service identifier (Douglis, col. 7, lines 31-33), and, and disconnects the client terminal when a time period that has elapsed since said arrival exceeds the timeout time (Douglis, col. 3, lines 9-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of Douglis in order to enable the use a timeout period as a disconnection condition. One would be motivated to do so in order to allow a customer to avoid the burden of disconnection and reconnection by paying a premium for the service.

18. With respect to claim 54, Rao teaches a communication system comprising:

A server (Rao, col. 4, lines 6-8); a plurality of client terminals (Rao, col. 16, lines 46-55); a first communication network that interconnects said server and the plurality of client terminals (Rao, col. 4, line 62 – col. 5, line 6); each client terminal including means for transmitting to the server a log-in request that comprises an identifier (Rao, col. 9, line 60 – col. 10, line 1), and the server including: a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals (Rao, Fig. 11; col. 14, line 45 – col. 15, line 15 and col. 16, lines

31-45); means for logging in a client terminal in response to a log-in request from the client terminal (Rao, col. 9, line 60 – col. 10, line 1); retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal; decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal (Rao, col. 16, lines 46-61).

Rao does not explicitly teach a timeout period as a disconnection condition.

However, Douglis teaches an application server that stores an application supplied to client terminals (Douglis, col. 5, lines 32-48); a second communication network that interconnects the server and the application server (Douglis, col. 5, lines 32-48); and wherein the disconnection condition for a client terminal is a non-communication time period during which no packet is communicated between the client terminal and the application server, and wherein the disconnection means monitors an arrival time of a packet that includes a transmission address and reception address corresponding to the client terminal and the application server (Douglis, col. 5, lines 32-67), and disconnects the client terminal when a time period that has elapsed after said arrival exceeds said non-communication time period (Douglis, col. 3, lines 9-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of Douglis in order to enable the use a timeout period as a

disconnection condition. One would be motivated to do so in order to allow a customer to avoid the burden of disconnection and reconnection by paying a premium for the service.

19. With respect to claim 55, Rao teaches a communication system comprising:

A server (Rao, col. 4, lines 6-8); a plurality of client terminals (Rao, col. 16, lines 46-55); a first communication network that interconnects said server and the plurality of client terminals (Rao, col. 4, line 62 – col. 5, line 6); each client terminal including means for transmitting to the server a log-in request that comprises an identifier (Rao, col. 9, line 60 – col. 10, line 1), and the server including: a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals (Rao, Fig. 11; col. 14, line 45 – col. 15, line 15 and col. 16, lines 31-45); means for logging in a client terminal in response to a log-in request from the client terminal (Rao, col. 9, line 60 – col. 10, line 1); retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal; decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal (Rao, col. 16, lines 46-61).

Rao does not explicitly teach a timeout period as a disconnection condition.

However, Douglis teaches an application server that stores an application supplied to client terminals (Douglis, col. 5, lines 32-48); a second communication network that

interconnects the server and the application server (Douglis, col. 5, lines 32-48); and wherein the disconnection condition for a client terminal is a timeout time (Douglis, col. 3, lines 9-26), the timeout time being stored in conjunction with the application server address and the service identifier (Douglis, col. 7, lines 31-33), and wherein the disconnection means monitors an arrival time of a packet that includes said address of the application server and the service identifier (Douglis, col. 5, lines 32-67), and disconnects the client terminal when a time period that has elapsed after said arrival exceeds said non-communication time period (Douglis, col. 3, lines 9-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of Douglis in order to enable the use a timeout period as a disconnection condition. One would be motivated to do so in order to allow a customer to avoid the burden of disconnection and reconnection by paying a premium for the service.

20. Claims 59, 63, 65, 66, 70, 74, 76, 77, 81, 85, 87 and 88 do not teach or define any new limitations above claims 48, 52, 54 and 55 and therefore are rejected for similar reasons.

21. Claims 49, 50, 56, 60, 61, 67, 71, 72, 78, 82, 83 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and further in view of McNamara (U.S. 6,262,976).

22. With respect to claim 49, Rao teaches the invention described in claim 47, including a communications system comprising: a server; a plurality of client terminals; and a

communications network that interconnects the server and the plurality of client terminals, the server including: a memory for storing disconnection condition information for each of the client terminals (Rao, Fig. 11; col. 14, line 45 – col. 15, line 15); decision means for monitoring connection states of the client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal (Rao, col. 16, lines 31-45), wherein the connection state of a client terminal is represented by two items of control information received from the client terminal (Rao, col. 9, lines 30-43); and disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal (Rao, col. 16, lines 46-61).

Rao does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara teaches the communication system wherein the disconnection condition for a client terminal is a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, and wherein the disconnection means monitors a data volume of packets having said transmission address and said reception address, and disconnects the client terminal when the data volume exceeds a specific data volume (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of McNamara in order to make use a disconnection

condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

23. With respect to claim 50, Rao teaches the invention described in claim 47, including the communication system wherein the disconnection condition for a client terminal is an allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time, and wherein the disconnection means sums data sizes of packets that have the transmission address and the reception address and are received within said period of time, and disconnects the client terminal when the amount of summed data sizes received in said period of time exceeds said allowable traffic value (McNamara, col. 36, lines 42-54).

24. With respect to claim 56, Rao teaches a communications system comprising:

A server (Rao, col. 4, lines 6-8); a plurality of client terminals (Rao, col. 16, lines 46-55); and a communications network that interconnects the server and the plurality of client terminals (Rao, col. 4, line 62 – col. 5, line 6), each client terminal including means for transmitting to the server a log-in request that comprises an identifier (Rao, col. 9, line 60 – col. 10, line 1), and the server including: a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals (Rao, Fig. 11; col. 14, line 45 – col. 15, line 15 and col. 16, lines 31-45); means for logging in a client terminal in response to a log-in request from the client terminal (Rao, col. 9, line 60 – col. 10, line 1); retrieval means for retrieving stored disconnection condition

information for a client terminal based on a user identifier transmitted from the client terminal; decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal (Rao, col. 16, lines 46-61).

Rao does not explicitly teach the disconnection of a terminal if the data volume of packets exceeds a specific value.

However, McNamara teaches the communication system wherein the disconnection condition for a client terminal is a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, and wherein the disconnection means monitors a data volume of packets having said transmission address and said reception address, and disconnects the client terminal when the data volume exceeds a specific data volume (McNamara, col. 36, lines 42-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rao in view of McNamara in order to make use a disconnection condition that occurs if a specified packet size is exceeded. One would be motivated to do so in order to decrease the amount of congestion from any one link.

25. Claims 60, 61, 67, 71, 72, 78, 82, 83 and 89 do not teach or define any new limitations above claims 49, 50 and 56 and therefore are rejected for similar reasons.

Response to Arguments

26. Applicant's arguments filed 30 January 2007 have been fully considered, but they are not persuasive for the reasons set forth below.

The examiner respectfully submits that Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
April 12, 2007

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER